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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/442,095	11/17/1999	CHONG-SAM CHUNG	1349.1016/GP	5416

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EXAMINER
PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
2653	

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/442,095	Applicant(s) CHUNG ET AL.	
	Examiner Aristotelis M Psitos	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) 18-19 is/are withdrawn from consideration.

5)☒ Claim(s) *12* is/are allowed.

6)☒ Claim(s) *1-11 and 13-16* is/are rejected.

7)☒ Claim(s) *17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Applicants' response of 9/26//02 has been considered with the following results.

Specification

1. The amendment to the title of the invention is still not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Applicants' arguments focus on the use of the holographic lens in this environment, hence at the very least such should also appear in the title. The examiner recommends the phrase HAVING A HOE (HOLOGRAPHINC LENS ELEMENT) inserted after the word "PICKUP" in the present title.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the equal spot sizes as claimed in claims 12 and 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 6, 7, 13, 14, and I6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art (either figure 1 or 2 as submitted) further considered with Maeda et al.

The acknowledged prior art depicts an optical pu device with a single laser source.

The ability of having the two light beams focused/projected onto a single layer of an optical record in this environment is taught by Maeda et al. Although Maeda et al uses a converter – element 2 to provide for the second light source, alternative ability such as plural singular light sources, each set at difference wavelengths is also taught by Maeda et al – see col. 4 lines 4, lines 10-13. Additionally, the examiner interprets the photodetector in Maeda et al as a photodiode (claim 6). Also, Maeda et al uses a holographic lens in his system for its inherent use.

It would have been obvious to modify the reference of the acknowledged prior art with the additional teachings from Maeda et al to provide for separate laser light sources at difference wavelengths, motivation is to provide for a dual wavelength optical pu device.

With respect to independent claim 13, this requires three additional elements, a driving section, a signal processing section and a controlling section. The examiner considers these elements as well known in this environment and Official notice is taken thereof.

Dependent claims 14 and 16 are also rejected for the reasons stated with respect to claims 2 and 6 above.

Applicant's arguments filed 9/26/02 have been fully considered but they are not persuasive. As noted by applicants and by the reference, Maeda et al uses his HOE to vary the size of the beam spot

upon the record, this is done in order to focus on the appropriate record layer, e.g. the cd and the DVD layers. With respect to the phrase "optimized with respect to the second laser" as a description of the detector, this is believed to occur from the above combination of elements, e.g. the photodetector in Maeda et al is now optimized for a second laser beam.

4. Claims 3, 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraphs 9 and 10 above, and further in view of Official notice/acknowledge prior art

Claim 3 recites a second collimating lens, e.g. one for each laser light source. Although the cited prior art (Official notice) only depicts a single collimating lens, the ability of providing for two, one for each laser light source is considered merely a duplication of parts, with no unexpected results occurring there from. Additionally, the acknowledged prior art depicts the use of a prism in this environment for its inherent function.

With respect to the particular wavelengths desired/claimed in claim 4, although the secondary reference to Maeda et al does depict the blue wavelength, it uses an infrared wavelength. Nevertheless, the acknowledged prior art uses a standard wavelength for the cd environment.

It would have been obvious to modify the references as relied above as stated in paragraphs 9 or 10 and further modify them with the acknowledged prior art and duplication ability as well as the particular wavelength selection, motivation is to provide for separate collimating lenses and increase flexibility.

Similarly, claim 15 recites the limitations of claim 3 and fall as well for the reasons stated above with respect to claim 3.

Response to Arguments

Applicant's arguments filed 9/26/02 have been fully considered but they are not persuasive. The examiner concludes that the ability to have two collimating lenses as opposed to one is a duplication of elements/parts. And because the use of such collimating lenses yields no unexpected results, that is the function of the collimating lens is duplicated, the fact of duplicating elements is not of patentable weight.

The examiner has not argued that the use of a second collimating lens is a design choice, but rather the duplication of an element.

5. Claims 5, 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 4 above, and further in view of Kajiyama et al.

With respect to claims 8 –11, Kajiyama et al teaches these in the holographic lens environment, see figures 7 – 9 for instance.

With respect to claim 5, such is considered merely an optimization of the holographic lens, with no unexpected results occurring from such a selection.

It would have been obvious to modify the references as relied above with respect to claim 4 and modify them with the above holographic lens teachings from Kajiyama et al, motivation is to provide for the appropriate holographic lens to project the light beams onto the record medium.

Response to Arguments

Applicant's arguments filed 9/26/02 have been fully considered but they are not persuasive. The examiner concludes that the substitution of the HOE from Maeda et al with that further taught by the Kajiyama et al HOE arrangement would be obvious to one of ordinary skill in the art.

Kajiyama et al is concerned with a dual wavelength light source in this environment and uses the particular HOE lens pattern of his figure 7 in order to achieve proper signal separation for the two selected laser beams, this is the reasons with respect to claims 8-11.

With respect to claim 5, this deals with the angle of divergence imparted by the first collimating lens. The examiner concludes that such an angle is optimization ability within the skill of the artisan – in manufacturing of collimating lenses, and as such would entail routine ability to modify the collimating lens in the above references so as to impart a particular desired angular divergence to the beam.

Conclusion

Allowable Subject Matter

Claim 12 is allowed. The cited prior art fails to disclose or teach the claimed holographic lens and function as recited.

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

AMP
December 2, 2002